



transportation in transition

1979
annual
report



new jersey
department of
transportation

transportation in transition

1979 Annual Report
New Jersey Department of Transportation



IN REPLY PLEASE REFER TO

State of New Jersey
DEPARTMENT OF TRANSPORTATION

LOUIS J. GAMBACCINI
COMMISSIONER

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June, 1980

Dear Citizen:

I am pleased to present this 1979 Annual Report of the Department of Transportation.

Transportation, always a vital factor in our economic and social growth as a state, has become even more critical in the context of the energy crisis. We are in a period of transition away from the large-scale road building of past decades, toward improvement of existing road and public transit facilities with renewed concern about energy conservation, land use patterns, environmental impacts and scarce public funding.

This document highlights some of the major areas of activity during the year. I appreciate your interest in transportation.

Sincerely,

Louis J. Gambaccini
Commissioner of Transportation

New Jersey Is An Equal Opportunity Employer

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funding

Introduction to Funding

Unlike most other states, New Jersey does not fund its transportation needs from transportation-related revenues such as gasoline tax and motor vehicle fees, and we spent less on transportation by virtually every measure. Funds are allocated from general revenues, and over the past two decades, the budget for the operation, maintenance and improvement of New Jersey's transportation system has fallen far short of what is required to ensure an efficient travel network.

The year 1979 brought some financial relief in the form of the Transportation Bond Issue and TRANSPEC funds for some, but not all, of the necessary capital improvements to roads and public transit over four years — through 1983. However, other capital needs and the regular operations and maintenance budgets remain inadequate and constantly shrink in value due to rapid inflation.

This financial picture contrasts with the high expectations and demands of the public in regard to the roads and bridges, buses and trains they use every day. The citizens of New Jersey want clean, well-paved, well-landscaped roads; they want points in traffic congestion relieved; and they want

bus and rail equipment in good condition, running on time and where it is needed. The Department of Transportation and NJ TRANSIT want the same things. But there is a gap between those expectations and the public funds available to meet them. We must work to bridge that gap by increasing public funds for transportation, reducing public expectations to conform to reality, or a combination of both.

In the meantime, the Department of Transportation and NJ TRANSIT are working to make as much progress as possible under existing funding levels.

TRANSPEC

The \$600 million TRANSPEC program, the largest transit capital improvement program in New Jersey's history, was set up in 1979.

Bi-State legislation permitted the

Port Authority of New York and New Jersey to provide \$120 million each from bridge and toll revenues for capital improvement to public transit in both states. This was added to federal dollars from the Urban Mass Transportation Administration.

TRANSPEC projects were selected from among more than \$2.5 billion worth of public transit projects analyzed and evaluated by the Department to be those which contribute most to the overall transit system through benefits to passengers, cost and readiness to implement.

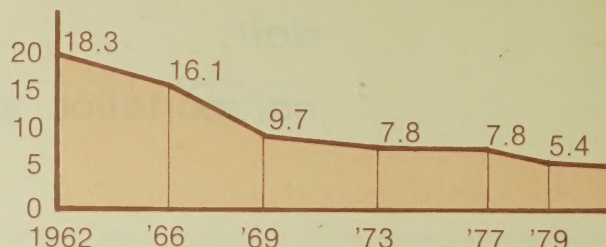
One of the priority projects covered by TRANSPEC is the purchase of over 1,100 new advanced design air-conditioned buses to replace those now in use which are over 12 years old. Bus exact-fare boxes, long-haul bus radios and additional bus service vehicles are also included in TRANSPEC.

The upgrading of the Raritan Valley Line, including new equipment, station restoration and track rehabilitation; the electrification of the North Jersey Coast Line from South Amboy to Matawan; the reelectrification of the Morristown Line of the Hoboken Division; and systemwide track, equipment and facilities rehabilitation are typical of the rail-related projects highlighted. TRANSPEC is designed to bring faster, safer, more reliable public service to New Jersey.

Bond Issue

In November, New Jersey voters approved a \$475 million Transportation Rehabilitation and Improvement Bond Issue which became the cornerstone of a four-year capital improvement program.

PERCENTAGE OF TOTAL STATE APPROPRIATIONS DEVOTED TO TRANSPORTATION



The Bond Issue included three separate components:

- \$245 million for rehabilitation of state highways, involving bridge reconstruction, resurfacing, widening and dualization, safety improvements, traffic signals and intersection and circle improvements;
- \$150 million for improvements to the public transportation network, bus and rail, including new equipment, bus shelters, added park and ride lots, and other projects which will insure safe, reliable and convenient public transportation;
- \$80 million for a new program to provide state aid to county and municipal government roads. This segment of the Bond Issue will allocate \$48 million on a population/road mileage formula to each county, with a guaranteed minimum of \$1 million allotted over four years. A \$20 million segment will be used to match a backlog of federal aid which could not be drawn before because of lack of State matching funds.

Although the Bond Issue will not solve all of New Jersey's transportation problems, it will allow the Department to begin the work of upgrading our existing transportation system.

TRANSPAC and the Bond Issue together with the annual state budget and federal matching funds is expected to provide \$2.1 billion for improvements over the four-year period.

Dedesignation

The U.S. Secretary of Transportation approved in September the dedesignation of Interstate Route 495 in Hudson County from the Interstate System, the first such dedesignation in New Jersey. This will permit New Jersey to utilize \$51.7 million in Interstate funds that have been made available through the withdrawal of I-495 for transportation projects listed in

the Tri-State Transportation Improvement Program, as developed through the Northeastern New Jersey Transportation Coordination Committee.

Through the efforts of U.S. Senator Harrison Williams and Congressman James Howard, a special \$15 million appropriation bill in Interstate transfer money for New Jersey has already been approved by Congress. A total of \$1.7 million of this appropriation will be used for engineering and design elements for the railroad station rehabilitation program. The bulk of the allocation will be used in the systemwide railroad track rehabilitation program.

Route I-495 is the principal New Jersey approach to the Lincoln Tunnel, extending westward to Interchange 16E of the New Jersey Turnpike. The 1.98 mile section from Interstate Route 95 in Secaucus easterly to the Pleasant-Park Avenue Exit, including its exclusive bus lane, provides acceptable highway capacity as part of the regional freeway system, but is not considered essential for completion of a national Interstate system.

planning for the '80's

State Plan

The first draft of the state's new transportation plan focuses on surface transportation — the movement of people and goods on rails and roads. It was circulated for review by county planning boards and at regional meetings during the fall and winter of 1979, the first time a transportation plan draft was submitted for public comment.

New Jersey has changed a great deal since the last master plan was formulated in 1972 and the new plan reflects these changes, particularly in the area of energy availability, funding, increased sensitivity to environmental protection and land use.

The first section of Part 1 includes policy statements in the following areas: bus and rail services, highways and streets program, pedestrian services, bikeways, paratransit, ride sharing programs, railroad stations, bus passenger facilities, park and ride programs.



Subsequent sections of Part 1 will focus on short-term and long-term elements of the Plan. Aviation, goods movement and waterways-passenger will be the topics of the final parts of

the Plan.

The Transportation Plan will join other recent major plans involving New Jersey's future growth and development. The other plans include the State Development

Guide Plan from the Department of Community Affairs, the Department of Energy's Energy Master Plan, the Department of Environmental Protection's Coastal Management Program and the State Implementation Plan designed to meet federal air quality standards. All are interrelated and will have an impact on the lives of New Jersey citizens.

Meadowlands

The Meadowlands, one of the largest underdeveloped tracts in the metropolitan area, provides a unique opportunity to demonstrate sound transportation/land use planning in the context of the realities of the 1980's — energy crisis, economic, social and environmental concerns, and limited public funds.

The Department continued its involvement in the orderly growth of the Hackensack Meadowlands through the Cabinet Development Committee in 1979.

Plans for a billion dollar commercial, recreational and residential complex were approved with conditions as a result of a general review completed in 1979. Suggested revisions to the original plan included reassessment of access locations along Route 3. The Department recommended construction of a rail station and transportation center and further planning for an internal transit system to

facilitate travel within the complex.

DOT and the Hackensack Meadowlands Development Commission (HMDC) will work with a nationally known consultant to develop a Transportation Impact Management System to insure the consistency of individual development proposals with the policies and programs of agencies involved in the Meadowlands District. These agencies, in addition to DOT and HMDC, include the New Jersey Sports and Exposition Authority and the New Jersey Turnpike Authority.

The management system will review not only land use plans, but will also measure and evaluate transportation facilities and characteristics. Eventually, local officials, private and public institutions will be involved in a monitoring process to insure that additional growth takes place in a staged, orderly manner.

Atlantic City

Plans to formulate a Regional Planning and Review Council for Atlantic City and Atlantic County were begun by the Department in 1979. The Council would carry out the function of the Metropolitan Planning Organization (MPO) that controls federal funding and serves as a coordinating and advisory board for transportation development involving both public and private funding in the Atlantic City area.

Atlantic City, Atlantic County, the Department of Transportation, the Department of Environmental Protection, the Casino Control Commission and other state agencies will be represented on the Council.

The Department also began planning short-term strategies for such transportation systems management improvements as parking and coordination between jitneys, buses, and shuttles.

TSM

Transportation Systems Management (TSM) is a technique used increasingly by the Department. TSM projects are relatively quick, low-cost highway or public transportation improvements to existing facilities which improve safety, efficiency and traffic flow.

Major TSM projects were completed or begun at Routes 4 and 17 in Paramus, Route 9 and Ernst Road in Sayreville, and Metropark Station in Iselin during 1979.

The intersection of Route 4 and 17, with major shopping centers on all approaches, has long been considered one of the most hazardous and congested intersections in the state. More than 180,000 vehicles use the area every day. By creating a through lane on Route 4 east with signs channelling motorists by destination, widening a service road and the Route 17 bridge over Route 4, this TSM undertaking is expected to reduce congestion by 25% and improve safety. The \$1.8 million project, begun in the fall of 1979, is scheduled for completion in 1980. It is being financed with 75% federal funds and 25% state funds.

More than 4,000 commuters travelling in 79 buses pass through the intersection of Route 9 and Ernst Road every morning and evening. In order to ease the congestion for bus commuters and motorists, the Department paved and signed a one-mile shoulder of Route 9 north creating an exclusive bus lane. This TSM action saves commuters 10-20 minutes a day in travel time, and eliminates previous congestion that resulted when buses stopped in lane traffic to pick up passengers.

Metropark Rail Station, the largest rail park-and-ride in the state, has attracted more and more



The intersection of Routes 4 and 17 in Bergen County

commuters since it opened in 1971. To create more space, the Department restriped the lot for compact cars, adding a total of 197 spaces. Other TSM efforts, including bus services and carpooling assistance to commuters, were planned for early 1980.

Joint Development/ Urban Initiatives

"Joint development" is the term used to describe the integration of several land uses, including transportation. Commercial, residential and industrial planning can center advantageously around public transit facilities such as commuter rail, rapid transit, bus stations, multi-model transfer sites

or transit malls. In combination with well designed pedestrian walkways, this can be extremely energy efficient.

Investments will focus on older urban areas which grew around transportation hubs, now seen as sites for a new, "mixed use" development. Public investment will provide leverage to even greater private sector participation which, in turn, will boost declining central business districts, create new employment and reduce social services costs, energy consumption and air pollution.

The Urban Mass Transit Administration's Urban Initiatives Program is a part of the larger, Carter Administration package to promote partnership between public and private sectors. At the outset of his second term, Governor Brendan Byrne outlined his goal to develop New Jersey cities. UMTA can help achieve this goal since most of the state's transportation routes continue to focus on city centers. DOT's Joint Development Program and Right of Way Division, and NJ TRANSIT staffs will plan and execute these programs.

Funds also have been allocated from the 1979 New Jersey Transportation Bond Issue for Joint Development and Urban Initiatives.

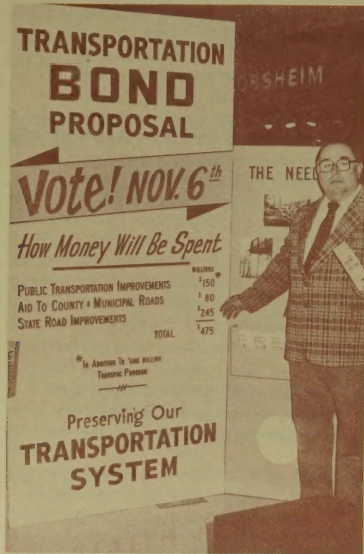
At the end of 1979, the Department began a statewide survey of rail and transit station areas to identify the best potential sites for these programs. DOT and NJ TRANSIT staffs also are working on projects such as Newark's Penn Station and Hoboken Terminal, the Princeton Junction and Trenton Rail Stations and Urban Initiative applications for the cities of Plainfield, Paterson and Asbury Park.

In 1891, New Jersey became the first state to grant funds for local road construction.



The revitalization of the Hoboken Railroad Terminal and its neighborhood has begun.

reaching out



1979 Bond Issue information display in an Essex County shopping mall

The success of public projects depends on citizen support and involvement in the planning process.

While areas in the Department work directly with citizens and transportation groups, helping New Jerseyans understand and take part in the planning and problem solving of transportation in this state is the special work of the Offices of Public Affairs and Community Involvement.

The PUBLIC AFFAIRS information staff handles dozens of calls daily from the media, state and local officials and the general public. Press releases and articles which alert the public to upcoming meetings, update on-going highway repair projects or public transit schedules or explain a new program are written every day.

Its Publications unit publishes *Mobility*, a quarterly periodical on transportation in the state; *Bus Rider* and *Rail Rider*, quarterly newsletters for commuters; and *Transporter*, a monthly for employees and retirees. Directories of Department services, a local names reference, and highway statistics are updated

and distributed periodically. Single issue brochures, for example, *Federal Aid Urban Funding in New Jersey* and *Mejor Transportacion Publica para el Desventaja* are created for the public as needed. A binder compiling these publications was distributed statewide to county and local officials.

The OFFICE OF COMMUNITY INVOLVEMENT provides for the Department's direct citizen contact and input during the development of transportation projects. Its staff provides Department representation and displays, slides and newsletters for public meetings, hearings, information centers and special meetings with county and local officials, individual citizens and citizen groups.

In 1979 Community Involvement conducted 64 public meetings and hearings, staffed 22 information centers and held more than 40 other meetings and presentations.

The transportation issues covered were as diverse as the complicated TRANSPAC funding program, drafts of the conceptually new state transportation plan, "504" regulations, (mobility for the elderly and handicapped), the Newark Access Study, Trenton's Market Street improvement, and Camden County's King's Highway dualization. Comments from the public helped the Department to revise plans and designs to accommodate local concerns while providing necessary improvements.

Special events helped bring

transportation issues to the attention of the general public in 1979. A Transportation Week Art and Essay contest drew more than 6,000 entries. The 1979 Bond Issue Drive necessitated the development of explanatory materials including specially designed press releases, county information kits, and the creation and distribution of a dozen billboard displays in shopping and transportation centers around the state.

The Offices of Public Affairs and Community Involvement frequently work on different aspects of the same project in an all out effort to translate transportation to the people it serves — and have those people respond.

Members of the Public Affairs, Community Involvement and Public Transportation staffs received a second place "Scoop" award in the 1979 competition for public affairs presentations sponsored by the American Association of State Highway and Transportation Officials.

Other Department units also seek support and comment from the public. For example, the State Aviation Advisory Committee was created at the end of the year, a product of regional "Town Hall Meetings" held throughout 1979. Its members are representatives of private and public aviation groups.

Technical Coordinating and Advisory Committees and Task Forces are formed whenever the Department seeks local officials, citizens and agencies as natural partners in a project.



Governor Brendan Byrne with one 1979 Transportation Week School Art/Essay winner.



public transportation

NJ TRANSIT We're here to get you there.

Governor Brendan Byrne signed the Public Transportation Act of 1979 on July 17. The law established the New Jersey Transit Corporation as a separate public agency to replace the Department's Commuter Operating Agency.

NJ TRANSIT has the authority to acquire private transit companies when it is in the public interest. Negotiations to acquire Transport of New Jersey (TNJ), the state's largest carrier, and its subsidiary, Maplewood Equipment, began almost immediately.

NJ TRANSIT is governed by a seven-member Board of Directors, including the Commissioner of Transportation, who serves as Chairman of the Board; the State Treasurer, serving ex officio; another member of the Executive Branch appointed by the Governor and also serving ex officio; and four public members appointed by the Governor with Senate approval for four-year terms. At least one public member must be a regular public transit rider.

The Department maintains budgetary control over NJ

TRANSIT's capital and operating expenses and also provides long-term planning. Private carriers not under contract with NJ TRANSIT will be regulated by the DOT's Office of Regulatory Affairs.

NJ TRANSIT's permanent headquarters will be in Newark.

900-Day Option

DOT acquired 374 miles of rail right of way and 130 passenger stations from Conrail and Amtrak at a total cost of \$17.5 million in 1978 which was made possible by the 900 Day Option of the Federal Regional Rail Reorganization Act of 1973.

The last rail properties available to DOT under the 900 Day Option were acquired in the spring of 1979: the Bergen County-Erie Main Line and the Reading Main Line, both active commuter lines.

The Bergen County-Erie Main Line runs from Bergen Junction near the Croxton Yard in Jersey City to the west end of Suffern Coach Yard by way of Ridgewood Junction, a distance of 28 miles. The total price, at net liquidation value plus additions and

betterments, was \$3,136,635.

The Reading Main Line extends 26 miles from West Trenton to Bound Brook and was recommended for purchase because of long-term planning considerations, including public transportation purposes. The cost, at net liquidation value, was \$1,394,536, plus a maximum of \$50,000 for additions and betterments.

The currently inactive Harrison-Kingsland Branch property was also acquired. It extends from Harrison on the state-owned Morristown Line to Kingsland on the state-owned Erie Main Line, a distance of 5.5 miles. The Branch is considered a vital transportation link in the development of the Hackensack Meadowlands because it forms a natural north-south corridor providing access to a variety of land uses proposed in the Hackensack Meadowlands Development Commission's Master Plan.

The Branch also is a rail connection between Newark and the Oranges and the New Jersey Sports Complex, the proposed Berry's Creek Center and other developments in the Meadowlands District, including the state park. The purchase price, at net liquidation value, was \$1,748,266.

Station Renovations

Major renovations were made to nine rail stations — Rutherford, Lyndhurst, Kingsland, Little Falls, Great Notch, Brick Church, East Orange, South Orange and Radburn — and minor repairs to the Broad Street, Newark; Summit and Perth Amboy Stations.

All renovation work was completed in 1979, approximately two years ahead of schedule, by a DOT engineer and a 30-man Conrail crew at a cost of just over one million dollars.

The station rehabilitation program was received enthusiastically by all municipalities involved, the Rutherford and Metuchen experiences being typical.

Built in 1897, Rutherford Station symbolized both the development of the borough and the growth, decline and revival of rail transport in the region.

Its innovative design and finely detailed work combines classical and period elements marking the station as a significant historical and a architectural landmark—a major reason it was selected by NJDOT to be one of the first subjects of its statewide station rehabilitation effort. The station

had fallen victim to decades of neglect, deterioration and vandalism.

The community's enthusiastic cooperation and support for the NJDOT project caps a decade of local interest in the station which stands at the hub of its downtown revitalization project. Rutherford officials and volunteers provided historical details and a consultant to design planters with brick connector bands. Municipal employees and volunteers laid the brick. Rutherford students refurbished column bases and, together with local organizations, plan to donate and plant trees. Local trades and craftspeople also cooperated in this station rehabilitation project.

Renovation work included the complete overhaul of plumbing, heating, electrical and drainage systems; repair and restoration of masonry, doors and windows; roof, gutters, soffits and overhangs replaced; renewal of columns and pedestals; improvement of platforms, sidewalks, handrails and signs.

The 89-year-old Metuchen Station offers a slightly different perspective on station rehabilitation, this time one accomplished in connection with a park-and-ride improvement project there. The original intent a decade ago was to tear the badly deteriorated building and

westbound waiting shelter down and replace it with entirely new structures. However, bids received on the project made the cost prohibitive and the plans were shelved.

In order to preserve the committed federal funding, the Department of Transportation proposed station rehabilitation instead. Metuchen's citizens and community leaders welcomed the plan since it preserved a local landmark while at the same time providing a modernized park-and-ride/transit complex for the 70 trains and 2000 passengers that use the station daily.

Much the same type of rehabilitative work was done at Metuchen as at Rutherford — aged brick was sandblasted and coated with silicone to preserve it; doors and windows were repaired; brick repointed; a new underground drainage system was installed as were new copper gutters and leaders to conform to the original detail. The interiors of both stations featured extensive decorative woodwork, fireplaces and stained glass windows.

A pedestrian underpass beneath heavily travelled Main Street, Metuchen, now provides safe crossing for commuters using the newly paved parking lots which surround the station.



A DOT chief engineer shows Commissioner Louis J. Gambaccini the restoration and renovation work completed at the historic Rutherford R.R. Station.

The State of New Jersey owns 969 railroad passenger cars and 107 locomotives of various types.

Rail Electrification

North Jersey Coast Line and Morristown Line rail electrification projects moved into the first construction phases late this year.

Work was almost completed on the final segment of the rehabilitation of the 66-year-old Navesink River Bridge when the first award for construction on the North Jersey Coast Line electrification was announced. The \$8.9 million contract will sink more than 300 steel tubes into sandy soil along a five mile stretch of rail bed between South Amboy and Matawan. The tubes vary in size depending on soil condition with diameters ranging from four to five feet and lengths varying from 30 to more than 80 feet.

Prior to actual installation of the pilings, a special computer analysis of soil condition in the project area will be done to determine the thickness of the walls of the steel tubes to be used at each foundation. The upper eight feet of the tube is filled with reinforced concrete to provide the base of summer 1980 installation of the catenary towers which will carry the electric wires.

The pilings will be load-tested in February 1980 to insure that they meet established load limits and deflection standards before fabrication begins.

Other projects on the North Jersey Coast Line electrification schedule include the million dollar repair and rehabilitation of the Cheesequake Bridge on the Sayreville-Old Bridge Township Line and the Travis Creek Bridge in Old Bridge.

The first construction contract on the Morristown Line (Erie-Lackawanna) reelectrification project was awarded in December. The \$1.2 million project involves construction of a signal power control house and temporary traction power supply substation in the Kearny/Harrison Meadows.

The signal power control house will permit alteration of the present frequency of the signal power system from 23kV/60Hz to 23kV/100 Hz. This will prohibit interference from the traction power supply substation which might otherwise result in signal system malfunction.

The traction power supply substation will provide power for



Steel pilings for the North Jersey Coast Line electrification project were installed at Matawan.

the three-mile test track in the Meadows between the Lower Hackensack Drawbridge and Harrison. Initially, the track will be used to provide hands-on training for Conrail crews on new equipment purchased for the Line.

It will also provide an opportunity to assess the performance of the new equipment. When the project is completed and the new equipment is in place, the test track will become part of the regular trackage.

Rail Station Leasing Policy

A Railroad Station Leasing Policy allowing communities to lease rent-free state-owned rail stations within their boundaries was adopted by NJ TRANSIT's Board of Directors late in 1979, based on an extensive report developed by the DOT's Office of Policy Analysis. Several municipalities have expressed interest in participating.

Under the policy, NJ TRANSIT's major station renovation and repair program will continue, but all stations facilities, including parking areas, may be leased to the municipality on a rent-free basis.

Commuters will be able to use the stations for any civic, social or commercial activity approved by the Board as long as adequate, clean, safe commuter facilities, including parking areas, are maintained. Any revenues derived from the station may be applied to offset the municipality's expenses for maintenance and security.

In return, municipalities will be responsible for the regular operation and control of their rail stations, for example, cleaning and maintenance, litter and snow removal, landscaping, and continued police protection.

Most active commuter rail stations acquired under the 900-Day Option are covered by the policy guidelines, including those on the Morris and Essex, North Jersey Coast Line, Raritan Valley, West Trenton and Pennsylvania-Reading Seashore Lines. Stations along Amtrak's Northeast Corridor, which are used primarily by New Jersey commuters, are also included in the policy.

Communi- cations

The Department of Transportation installed a station public address system for ten heavily-used stations on the Raritan Valley Line in November. The speaker system is used to advise passengers of delays or changes in arrival/departure locations between 6 a.m. and midnight seven days a week.

The speaker system is controlled from NJ TRANSIT's Information Center in Newark. From there, Raritan Valley stations on the hook-up can be addressed individually or as a group. Stations served include Roselle Park, Cranford, Westfield, Fanwood, Netherwood, Plainfield, Dunellen, Bound Brook Somerville and Raritan.

The Raritan Valley Line's system is similar to one installed on the North Jersey Coast Line in mid-1978 and is part of an expanded rail station information program which has been implemented during the last year. The information network also includes seat notices to announce upcoming delays or repairs or explain emergency situations which may have affected prior service. In addition, a toll-free number (800-242-0212) is available from 6 a.m. to midnight daily to provide schedule and fare information.

Similar public address systems to serve passengers on the Morristown Line will be installed early in 1980.

During 1979 Conrail's public information center served a record number of patrons using MAIL—TIK and the toll-free information number.

Twenty-three operators on the toll-free line from 6 a.m. to midnight seven days a week answered 892,764 calls for transit information. August was a record month with over 96,000 calls handled by staff.

The MAIL—TIK operation, which allows rail passengers to purchase monthly tickets through a computerized mailing system, brought in over \$5 million in revenues through sale of nearly 99,000 tickets.



Subsidized Passenger
Rides per Month: Bus and
Rail Subsidy Program
(New Jersey Budget)

Marketing

The Department distributed \$341,192 in grants to 16 counties and other local agencies in July to promote the use of public transit — bus and rail. The local marketing program supplemented various DOT-sponsored activities statewide designed to stimulate transit ridership.

The county transit marketing program was developed by the Department and funded from money originally set aside for a transit marketing study. The study was shelved in favor of direct action to market services. Every county which applied was given a grant.

The grants were 100% state funded with no local matching funds required. Recipients were only required to furnish project management and staff support services.

Ride guides, including special maps and schedules, school programs, train station displays, and promotion of special transit services for senior citizens and the handicapped were among the projects funded in this unique community-based program to increase public awareness of New Jersey's public transportation system.

In an effort to reduce the impact of the summer's energy crisis on New Jersey shore vacationers, the Department offered a half-fare "seat sale" every weekend from July 16 through Labor Day. Nearly 70,000 took advantage of the special program.

The 50 percent rollback in fares applied to all travel from Newark and New York City to Long Branch and all stations south of Long Branch. Travel in either direction was included in the fare plan and special buses took train riders free to points as far south as Island Beach State Park.

The round-trip cost for a family of two adults and two children, ages 5-16 (children under 5 rode free) to Point Pleasant Beach and Bay Head from New York City was \$12.60, from Newark \$10.40.



The wheelchair lift on a vehicle for the transportation disadvantaged is demonstrated at a presentation ceremony.

Programs for the Elderly and Handicapped

The Department's Office of Special Programs reported that the enrollment of New Jersey's elderly and handicapped citizens in its reduced fare program rose from 443,278 to 509,700 in 1979, while their one way trips rose from 12.4 million to 14.5 million. Two more bus companies brought the number participating in this program to 197 under 82 different contracts.

Private and non-profit corporations in New Jersey now have 234 specially equipped vehicles ranging from vans and station wagons to school buses to provide transportation services to the elderly and handicapped. Using Urban Mass Transit Act funds, 70 were distributed in 1979 and another 70 ordered in 1979.

Almost every county showed

interest in applying for UMTA funds for rural public transportation of the disadvantaged. The difficulty of adding the local matching funds has slowed this program. Cape May County had submitted a model application.

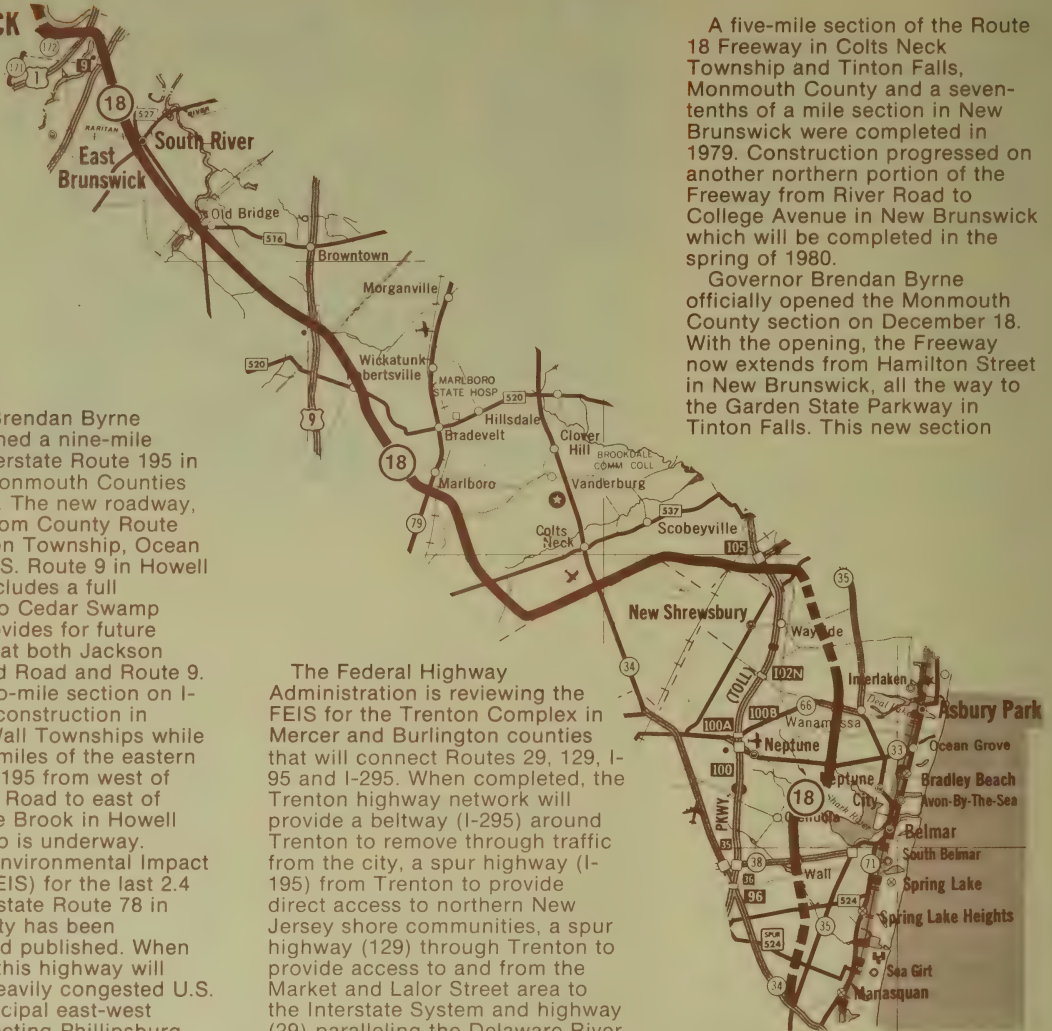
Six counties submitted applications to purchase wheelchair lift equipped vehicles under the Federal Aid Urban System Program in 1979, a total of \$965,636 to purchase 15 vans and 25 buses with lifts. FAUS and state funds are matched in a 75-25 percent ratio.

The Office's Coordination staff, formed with an UMTA grant to coordinate all of the state's paratransit services, organize a Governor's Task Force made up of representatives of all New Jersey agencies which received funding for the transportation of the elderly and handicapped. The task force will present a report in January 1980 to outline the role of government agencies in the coordinating effort along with obstacles and suggestions for providing maximum special transportation with available funding.

roads and bridges

Route 18 Freeway

NEW BRUNSWICK



Interstates

Governor Brendan Byrne officially opened a nine-mile stretch of Interstate Route 195 in Ocean and Monmouth Counties on August 16. The new roadway, which runs from County Route 527 in Jackson Township, Ocean County, to U.S. Route 9 in Howell Township, includes a full interchange to Cedar Swamp Road and provides for future interchanges at both Jackson Mills-Freehold Road and Route 9.

Another two-mile section on I-195 is under construction in Howell and Wall Townships while the final two miles of the eastern terminus of I-195 from west of Preventorium Road to east of Mingamahone Brook in Howell Township also is underway.

The Final Environmental Impact Statement (FEIS) for the last 2.4 miles of Interstate Route 78 in Warren County has been completed and published. When constructed, this highway will replace the heavily congested U.S. 22 as the principal east-west arterial connecting Phillipsburg and Easton, Pa.

The Final Environmental Impact Statement on the uncompleted 20-mile section of Interstate Route 287 from Montville to Mahwah in Morris, Passaic and Bergen Counties, was submitted to the New Jersey District Office of the Federal Highway Administration for review and comment in February, 1979. The document is being revised in accordance with comments received from FHWA. Final approval of the statement by the FHWA in Washington D.C., is expected in 1981.

The Federal Highway Administration is reviewing the FEIS for the Trenton Complex in Mercer and Burlington counties that will connect Routes 29, 129, I-95 and I-295. When completed, the Trenton highway network will provide a beltway (I-295) around Trenton to remove through traffic from the city, a spur highway (I-195) from Trenton to provide direct access to northern New Jersey shore communities, a spur highway (129) through Trenton to provide access to and from the Market and Lalor Street area to the Interstate System and highway (29) paralleling the Delaware River to provide access for the western section of the city and the capital complex to the Interstate System.

The Draft Environmental Impact Statement (DEIS) for the 29.1 mile extension of Interstate Route 95/695 from Ewing Township to South Bound Brook in Mercer, Somerset and Middlesex Counties was forwarded to the FHWA for comment in December 1979.

The Department also is conducting a feasibility study on construction of a connector linking downtown Newark with Interstate Route 280.

A five-mile section of the Route 18 Freeway in Colts Neck Township and Tinton Falls, Monmouth County and a seven-tenths of a mile section in New Brunswick were completed in 1979. Construction progressed on another northern portion of the Freeway from River Road to College Avenue in New Brunswick which will be completed in the spring of 1980.

Governor Brendan Byrne officially opened the Monmouth County section on December 18. With the opening, the Freeway now extends from Hamilton Street in New Brunswick, all the way to the Garden State Parkway in Tinton Falls. This new section

extends from Route 34 in Colts Neck to the Parkway and Wayside Road in Tinton Falls.

Southbound traffic on the Freeway now is able to exit directly onto the Parkway. Also as a result of the completion of this section, the Highway Authority permits heavy trucks to use the Parkway up to Exit 105 (Route 36), instead of Exit 98 (Route 34).

The newly opened portion in New Brunswick was completed in November and permits through traffic on Route 18 westbound to bypass the heavily-congested

Route 27 Interchange and proceed to Hamilton Street where it can exit to Rutgers University, Johnson and Johnson or continue to Easton Avenue. Motorists from the Hamilton Street area wishing to travel eastbound on the Freeway can now reverse these directions.

The Route 18 Freeway section now under construction in New Brunswick contains a 1,050 foot bridge that will carry the Freeway across the Raritan River to Piscataway. It will be the first highway bridge in New Jersey to contain a separate bikeway.

Sections from River Road in New Brunswick north to Interstate Route 287 and portions located south of the Parkway are in the feasibility study stage.

Route 55 Freeway

Negotiations to acquire properties for the completion of the four-lane Route 55 Freeway between Routes 40 and 42 in Gloucester County began in September. The 20-mile project will involve an estimated 700 properties and is one of the larger acquisition programs undertaken by NJDOT in recent years. The right-of-way process will take two to three years.

The construction sequence report has been approved and it is anticipated that multiple contracts will be ready for advertising in time for the 1982 construction season. Final design agreements with the consultants are now being prepared and will be executed early in 1980.

The estimated right-of-way cost, including relocation assistance and moving cost reimbursements, is \$24,850,000. A total of almost \$11.5 million for acquisition is in the \$475 million Transportation Bond Issue which was approved by New Jersey voters in November.

The roadway from Tylers Mill Road to Route 42 will have an enlarged, 147-foot median for future expansion of the PATCO High Speed Line to the Pitman-Glassboro area.

Construction of the first section of the Route 55 Freeway began in the Vineland area in 1965 and southern sections of the super highway were completed in 1969, 1972 and 1973 in



Pulaski Skyway improvements were underway

Cumberland and Gloucester Counties. The Freeway provides a keystone for substantial residential, commercial and industrial development in Gloucester, Cumberland and Salem Counties and is a boon to shorebound vacationers.

Pulaski Skyway

Construction of safety and structural improvements to the 47-year-old General Pulaski Skyway superstructure in Hudson and Essex Counties began in the fall with installation of an aluminum barrier running the length of the 3.5 mile structure and resurfacing of the two inner lanes.

The Skyway is being resurfaced with a latex modified concrete, noted for its anti-skidding and durability attributes. Work is being staged in three phases to accommodate the Skyway's daily traffic volume of 39,200 cars. It is scheduled for completion in the fall of 1980.

The \$10.5 million project is being funded by federal and state appropriations.

Grassy Sound Bridge

The Grassy Sound Bridge, Route 147 in Cape May County, the only direct access between the

mainland and North Wildwood, which is utilized by thousands of summer visitors each year, was closed to traffic on May 7 as a result of fire. The bridge and roadway were reopened a month and a half later on June 29 as a result of DOT's emergency rehabilitation efforts, and the cooperation of state and local officials. Contractors, as well as crews, worked around the clock so the roadway could open to traffic prior to the July 4 holiday.

An emergency proclamation was issued by Governor Brendan Byrne allowing DOT to apply for and to receive 100 percent Federal funding for the repair of the Grassy Sound Bridge, which came to \$1 million.

S.O.R.T.

S.O.R.T., the Department's Special Operations Research Team, is called into action when it is believed that a relatively quick solution can be found to a problem. Representatives from traffic engineering, maintenance, design, transportation operations and local aid and the regional office of the Federal Highway Administration make up a typical S.O.R.T.

Twelve S.O.R.T. investigations were conducted in 1979, one more than in the previous year. Six resulted in recommendations to the Chief Engineer of Transportation Operations and Local Aid.

Operating under a \$28,000 federal grant, S.O.R.T. gathers information and provides recommendations on potential hazards on highways that are operational or under construction. A high accident rate at U.S. Route 1 at Bakers Basin in Lawrence Township and a bus accident at Interstate Route 95 and Route 29 at the Scudders Falls Bridge caused those locations to be the subjects of major S.O.R.T. studies in 1979.

Signal and signing modifications were subsequently installed on the Route 1 location and new signings recommended for the Route I-95/29 site.

Since its inception in 1976, S.O.R.T. has helped to implement over 100 solutions to problems.

County. Similar to the one operating at the Ellisburg Circle in Camden County, it will monitor traffic on all approaches to the circle and meter entering vehicles so that movement around the circle is smoother and safer.

Traffic control devices were updated and other improvements

made to the following heavily trafficked intersections, including: Church Road Circle, Cherry Hill, Camden County; Route 206 and Main Street, Chester, Morris County; I-287 and Main Street, Montville, Morris County; and Winfield Circle, Cranford, Union County.

Traffic Control

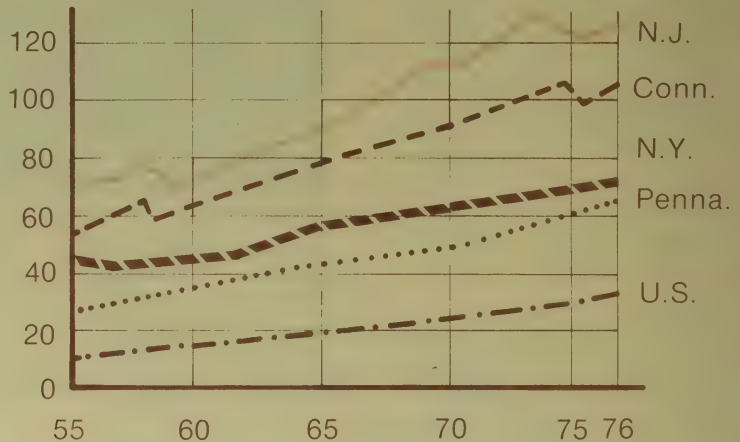
New Jersey has the highest density of vehicles per mile of road — 125 — compared to the national average of 34. It follows that keeping traffic moving is a major concern of the Department.

A signal modernization program, funded up to 100 percent by the Federal Highway Administration, was inaugurated late in 1979 to reduce traffic congestion, increase safety and conserve energy by updating traffic signals on county and municipal roads. As a result, a one million dollar modernized traffic signal system demonstration project will be installed in Paterson. Another 1,400 locations in New Jersey need signal rehabilitation or reconstruction.

Final design of a computerized traffic guidance system for eight northeast counties to alert motorists to accidents and other traffic obstacles ahead and suggest alternate routes was begun. A similar system is planned for the Newark Airport Exchange, one of the most complex highway interchanges in the world.

Work on construction of a \$270,000 computerized signal system was begun in 1979 at the Somerville Circle which connects Routes 206, 202 and 28 in Somerset

VEHICLES PER MILE OF ROAD



Bikeways

Bikeways, once constructed for purely recreational purposes, have emerged in New Jersey as a viable means of travel due to the high cost of fuel. The Department of Transportation has an active bikeway construction program.

New bikeways in Hammononton, Moorestown, Cherry Hill, Township, Piscataway and Willingboro were completed in 1979, bringing the Department total to 20 bikeways since 1975. Two others are under construction, four are planned for 1980, and 32 are in the design stage.

A three-mile \$200,000 bikeway in Johnson Park in Piscataway and Highland Park nears completion. It will serve as the third link in a system that extends from East Brunswick through New Brunswick to Piscataway, connecting with the Route 18 bikeway.

The federal government now provides 75 percent of bikeway funding. The Federal Highway Administration allows each state to spend up to \$2.5 million of its highway funds for independent bikeway construction projects each year. Bikeways can be built as incidental features on regular highway improvement projects and are not subject to the \$2.5 million limit.

There are three basic classes of bikeways. Class 1 provides a separate path or trail for exclusive use of bicycles and has a minimum width of eight feet for a two-way path. Class 2 uses a portion of roadway which has been designated for preferential or exclusive use by bicycles and its minimum width is four feet for a one-way bike lane. Class 3 utilizes a low traffic street (less than 2,000 cars per day) which is officially designated by signs as a bicycle route.

Many of the bikeways connect college campuses, schools, shopping centers and other recreational facilities.



A new bikeway in Johnson Park, Piscataway and Highland Park.

Rail/Highway Crossing

The grade crossing program supervised by the Department insures greater safety at rail/highway crossings by reconstructing road surfaces at crossings and by upgrading automatic signal protection for motorists.

Field audits are conducted by staff over every rail line in the state. Various county and municipal agencies provide additional information concerning the condition of rail/highway crossings within their jurisdiction. The information is then compiled into a project listing for Federal Highway Administration for approval and funding. The federal government pays 90% of the project's cost with state appropriations providing the remaining 10%.

During calendar year 1979, construction was completed on 36 surface and 49 protection projects, construction was authorized on 24 surface and 18 protection projects, and 21 surfacing and 7 protection projects went through the preliminary engineering phase.

The largest project completed in 1979 was in Hackensack where automatic protection devices were installed at ten crossings at a cost of \$800,000.

Recycling

Asphalt that once was the surface of Route 1 in Middlesex and Mercer Counties now covers a portion of Route 130 as the result of an experimental recycling project which saved the state \$84,000 while substantially reducing air pollution, and saving energy.

Funded through a demonstration project grant from the Federal Highway Administration, the DOT project proved that Route 1's old asphalt and stone could be combined with new asphalt to produce a mixture to resurface 1,200 feet of Route 130's main roadway.

The FHWA estimated that this process could permit 50 million tons of asphalt from the nation's older highways to be recycled annually, producing reusable paving material with a market value of \$300 million. Whole road surfaces may be taken up, reprocessed and replaced, with considerably less use of asphalt, and oil by-product.

The Department will continue to resurface highways with recycled asphalt in instances where sufficient quantities of old asphalt exist.

protecting the environment

As the most densely populated state in the nation, New Jersey must work to make its environment cleaner and healthier for its citizens.

Environmental quality is a Department priority from planning through construction and maintenance stages. The impact of proposed projects on all aspects of the environment — air quality, noise level, economics, aesthetics, wildlife, water and cultural resources — is analyzed. When it is decided that the project is indeed necessary, the Department's design units work with recommendations to eliminate or minimize potential negative impacts. The Department completed 172 different environmental reports pertaining to 104 active transportation projects in 1979. The Environmental Impact Statement for the widening of Route 23 in Wayne Township, more than five years in development, was also finalized.

Reducing air pollutants generated by New Jersey's high vehicle density and citizen dependency of increasingly limited fuel supplies remains the Department's greatest challenge. In 1979 DOT intensified its ride sharing activities and instituted a multi-faceted statewide campaign to increase the use of public transportation. It provided computer matches and pilot programs for the private and public sector on carpools and vanpools in an all out effort to reduce the number of individual vehicles on the state's roads.

The Department's traffic control, noise barrier and landscaping projects, and airport flight patterns reflecting sensitivity to noise levels, also added to the overall effort to improve the environmental quality. The use and composition of highway salts is monitored to lessen their effect on water purity. In an innovative program, an organic deer repellent was used for the first time with great success to protect evergreens on stretches of Route 55 and 195 from being cut down during the Christmas season. Its odor effectively repelled humans, too.

A significant example of meeting the goals of transportation and environmental quality took place

in 1979 in preparation for the construction of the next 4.2 miles of Interstate Route 195 in Howell and Wall Townships. Historical and ecological resources were protected; new clues to life on the state's coastal plain 10,000 years ago and information on environmental changes which will guide future planning were obtained. Construction, including redesign of three ramps, began on time.

In this project, modern scientific tools were used to unearth the past and help plan the future.

An infrared transit beam located dig sites in wooded areas while a subsurface radar unit, developed for the U.S. lunar landing, "bleeped out" highly accurate information about underground non-metallic artifacts and soil changes.

The I-195 project represents the first intensive scientifically controlled excavation on New Jersey's coastal plain. Coupled with earlier findings along the Manasquan River, its unearthing of a lone Paleo-Indian spear point in an undisturbed state has triggered

a re-evaluation of the previously accepted opinion that this earliest group of Native Americans in the Northeast, who lived about 10,000 years ago, did not extensively inhabit the coastal areas of New Jersey.

Future study of these sites is expected to reveal data on the changing course of the Manasquan River and shifting geological reformation, an "environmental time capsule" providing a more accurate basis upon which proposed man-made changes to the environment can be predicted.

The I-195 archeological survey work, completed in January, recovered over 30,000 artifacts. Squankum Mill, the site of Jackson Forge and four prehistoric Indian sites are eligible for inclusion in the National Register of Historic Sites and will become part of Allaire State Park's historical preservation project.

The survey and salvaging work, jointly sponsored by DOT and the Federal Highway Administration, was undertaken to conform to a federal mandate.



Archeological excavation preceded work on a new segment of Interstate Route 195 in Howell and Wall Townships



Bader Field, Atlantic City

aviation

Commuter flight service is the fastest growing segment of public transportation in the country. And the 1979 Aviation Assessment Study showed that \$500 million is spent in New Jersey by the aviation industry on materials, salaries and services.

New safety and public participation programs, policy review and responses to proposed federal policies for airport development in the face of economic constraints are among the highlights of the Department's Division of Aeronautics in 1979.

Bader Field was upgraded to meet increased air traffic resulting from the Atlantic City resort development. A new crosswind runway, control tower and an instrument landing system for precision approaches were among the improvements.

The Department also drafted an airport capital assistance program designed to further enhance safety and airport development. In still other safety moves, the Division marked high tension wire and obstacles at six airports in 1979 and will extend the program. Airport surveillance radar is planned for Mercer County Airport in cooperation with the FAA. An airport road sign program has been initiated to guide the public to local general aviation airports.

A small community air service study and a joint study with the Departments of Education, Higher Education and Labor and Industry on the feasibility of a community college aircraft mechanics course (a critical shortage is predicted for the '80s) were begun.

The Division licensed, inspected, provided engineering and planning support, maintained records for 516 aeronautical facilities and 204 related enterprises and registered 3,352 aircraft to support the movement of 14 million annual passengers and the flight activities of 17,000 pilots and air crews.

The Division also prepared the innovative Aviation Economic Impact Assessment. Its *Flight Log* newsletter, has been called an outstanding publication of its kind.

staff

New programs were introduced in 1979 to provide greater management development and employee counseling within the Department.

The Working Lunch program (an informal discussion with the Commissioner), and the Public Policy Analysis, Advanced Transportation Policy and Decision Making courses were offered to management level employees to provide them with new insights, further identification with DOT policy and latest developments. A new Career Counseling Program was initiated to provide all field employees with professional career counseling to help guide them towards their long-term career goals.

The Department conducted one of the first Assessment Center type examinations given in New

Jersey for an upper management position. A concentrated effort on minority engineering recruitment resulted in the hiring of 12 minority and female engineers this past recruiting season. The Personnel Division succeeded in reducing the sick leave injury awarded by the Department by 30 percent.

Employee and Support Services lent much of its expertise in 1979 to the formation of NJ TRANSIT. It assisted in decisions concerning office location, procurement procedures, by-laws, office furniture, filing, microfilming and classification and compensation schedules for NJ TRANSIT.

The following new Department facilities were completed in 1979: fuel dispensary Fernwood Complex; maintenance facilities: Elizabeth, Washington Township,

Lafayette and Mays Landing; electrical facility; Stanhope and Cherry Hill; new salt storage buildings; Mt. Laurel and Bridgeton, Riverdale, Lodi, Elizabeth and East Rutherford. The headquarters cafeteria and hearing room were refurbished and construction is underway and/or completed for new fuel dispensaries in strategic locations throughout the entire state.

The Department developed a new procedure for Standard Consultant Contracts for Local Aid Projects reducing the processing time from 368 days to 277 days, a Pilot Vanpool Program, a Project Administrative Reporting System for the 1979 Bond Issue, and a Department wide survey on word processing needs which resulted in a grant from the Treasury Department.



Exercises at a training seminar

transportation facts



New Jersey's statewide public transit agency

Route miles of rail track	495
Rail passenger stations	130
Railroad coaches	969
Locomotives	107
Average daily rail ridership (one way)	75,000
Transit buses	967
Commuter buses	578
Subsidized bus companies	21
Average daily bus ridership (one way)	325,000
Public funds used for bus and rail service	State \$56.1 million Federal 57.6 million Total FY 1979 \$113.7 million

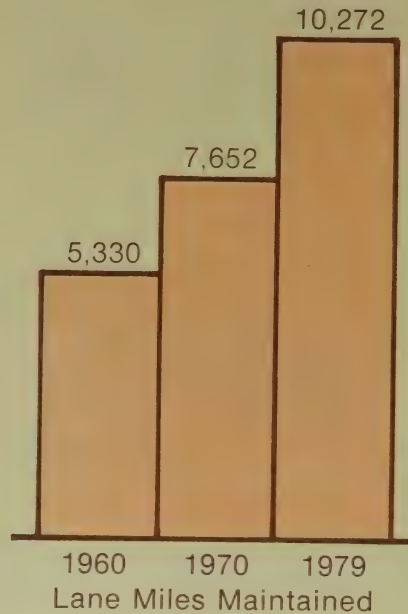
RIDE SHARING PROGRAM

<u>CARPPOOLS</u>	<u>NO. OF EMPLOYERS</u>	<u>NO. OF PARTICIPANTS</u>
Public and private	253	55,291
VANPOOLS		
Public and private	43	7,584 (647 vans)

FUEL SAVED: It is estimated that each carpool (2.5 person average) saves 670 gallons of fuel per year.

It is estimated that 1979's vanpool fuel savings was 4.7 million gallons, based on an average fuel consumption of vans compared to passenger cars, the number of cars replaced by vans and an average 63.7-mile daily vanpool round trip.

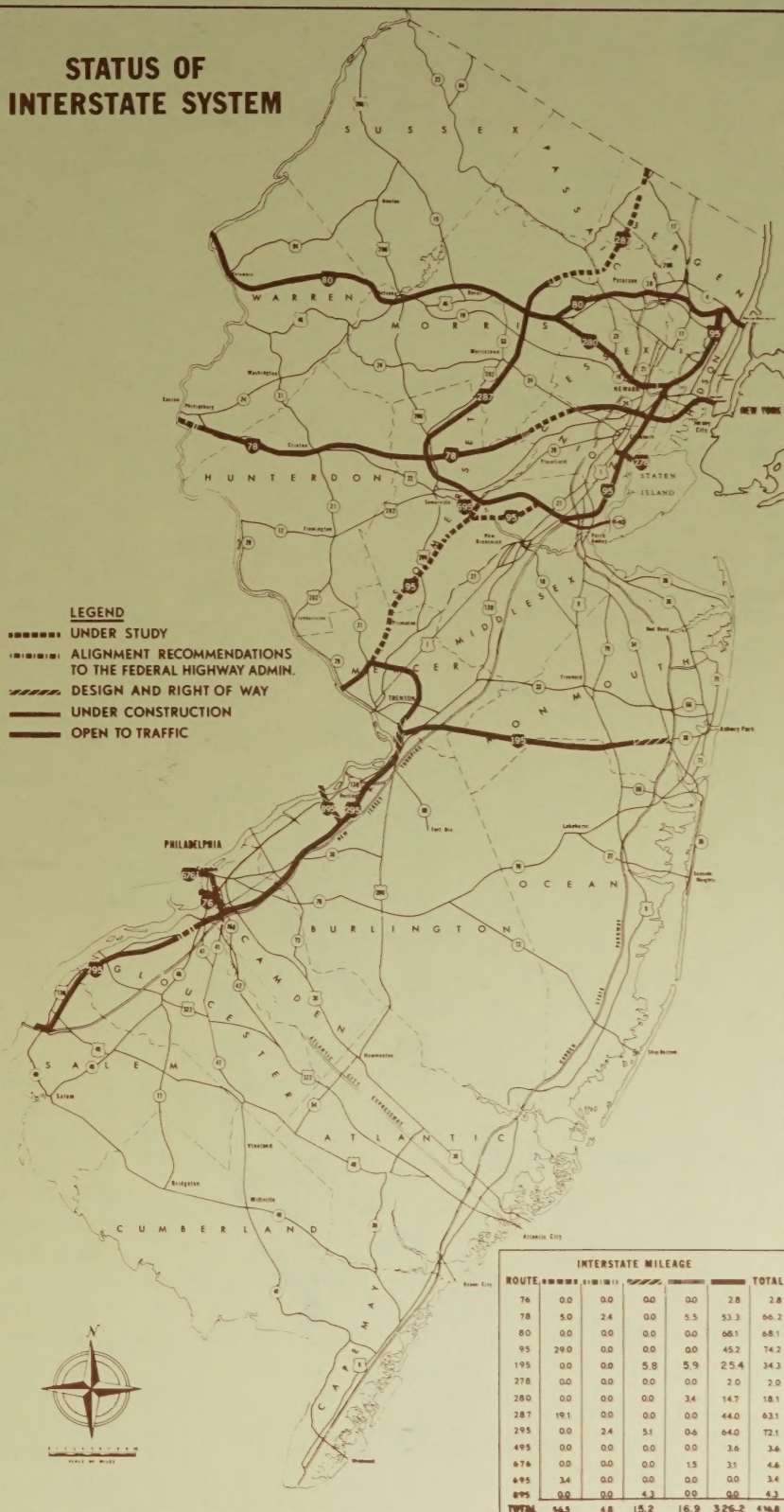
ROADS AND BRIDGES ON STATE HIGHWAY SYSTEM



Maintenance Inventory

Highway lane miles	10,272
Institutional road miles	615
Fixed structure bridges	2,972
Drawbridges	37
Railroad bridges	62
Canal and feeder bridges	50
Mile markers (units)	3,053
Curbs (miles)	3,463
Shoulders (miles)	4,776
Cable guide rail (feet)	1,003,279
Steel guide rail (feet)	3,989,353
Chain-link fence (feet)	1,919,534
Planted snow fence (feet)	193,632
Signs	112,258
Sign bridges	740
Traffic signals	1,888
Trees	184,554
Shrub beds (sq. yds.)	766,135
Grass areas (acres)	10,649

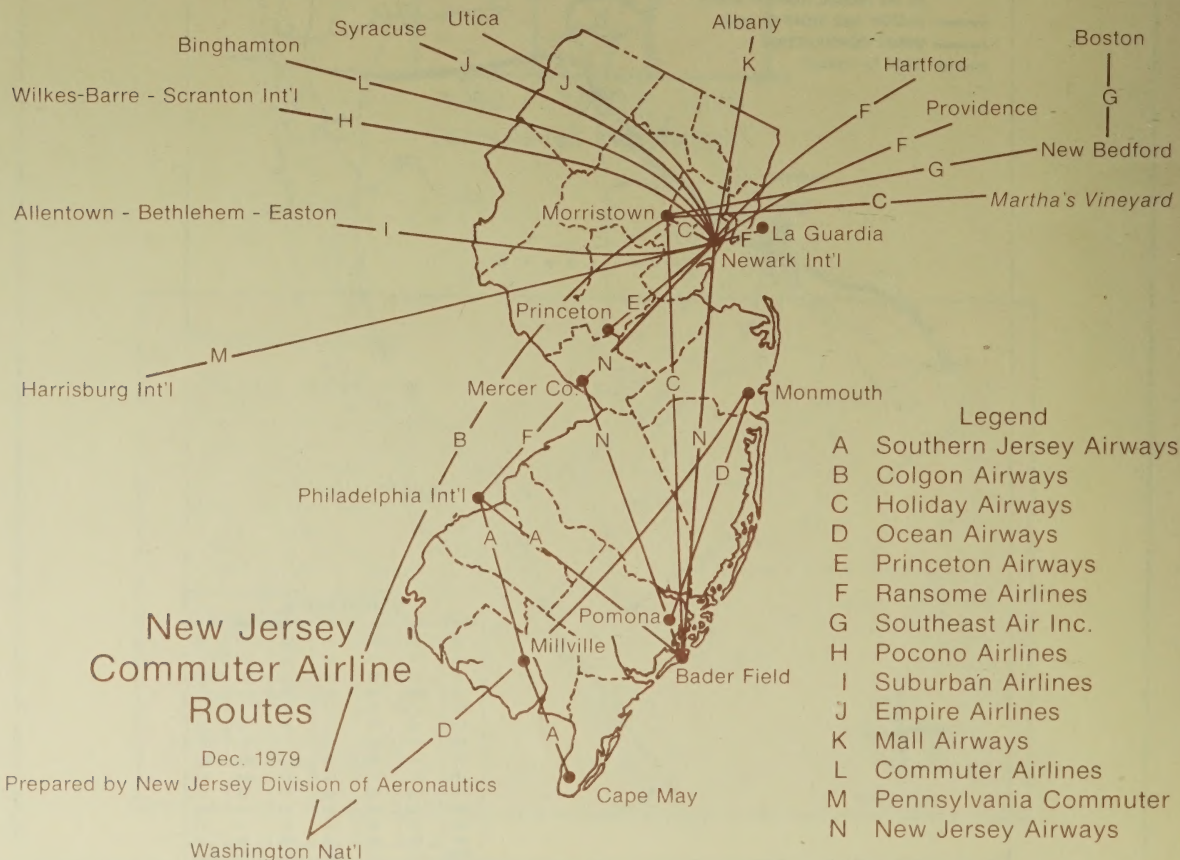
STATUS OF INTERSTATE SYSTEM

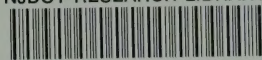


aviation

(1979)

Air Facilities Licensed	516
Public Use	89
Publicly Owned	14
Privately Owned	75
Private Aviation Facilities (individual use only)	60
Heliports/Helistops	367
Hospital Heliports	24
Fixed Base Operators Licensed (Aeronautical Activities)	204
Aircraft Registered in New Jersey (FY 1978)	3,352
Aircraft Dealers Licenses Issued	39
Residents with Federal Pilot Certificates (1/1/78)	17,000
FAA Airport Master Inventory Program (FAA 5010 Program)	34
Engineering Surveys (airspace, hazard, powerlines, etc.)	38
Public Hearings and Meetings	20
Alleged Flight Violation Complaints	4
Flight Safety and Education Presentations	14
Special Flights Supporting Department and Division Missions	92
Aeronautical Inspections Conducted (Facilities & F.B.O.'s)	864





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